Precaution Notice

Only a technician, authorized by ENERMAX, is allowed to perform maintenance service! Warranty is subject to void under unauthorized attempt to open the power case or modification of any kinds, even attempted only, of the power supply or its components!

ENERMAX will not be responsible for damages caused by following situations:

- Opening of the PSU case and/or modification of any component or cable without ENERMAX' written authorization
- Ignoring connector's wrong insertion prevention design by attaching a connector to a device in wrong orientation
- Connecting too many devices to one cable unit by using additional adaptor (Y cables) which may cause voltage drop to the devices and eventually damage them.
- Damage caused by natural phenomena or uncontrollable forces, such as lightning, flooding, fire, earthquake, etc.

This ENERMAX Technology Corporation product is warranted to be free from defects in material and workmanship for a period of three (3) years from the date of purchase. ENERMAX Technology Corporation agrees to repair or replace the product, at its own option and at no charge, if, during the warranty period, it is returned to nearest ENERMAX Technology Corporation subsidiary/agent with all shipping charges prepaid and bearing a return merchandize authorization (RMA) number, and if inspection reveals that the product is defective. Charges for removing or installing the product are excluded under the terms of this warranty agreement. This warranty shall not apply to any product, which has been subject to connection to a faulty power source, alteration, negligence, or accident, or to any product, which has been installed other than in accordance with these instructions. In no event shall ENERMAX Technology Corporation, or its subsidiaries, or agents be liable for damages for a breach of warranty in an amount exceeding the purchase price of this product!

If you are uncertain whether or not your ENERMAX NOISETAKER II PSU is defective, please contact your dealer/reseller for support!

Web Site: http://www.enermax.com

E-mail: enermax@enermax.com.tw
© 2006, ENERMAX Technology Corporation, 15F-2, No. 888, Jing-Guo Road, Taoyuan City (330), Taiwan (R.O.C.), Tel. +886-3-316-1675, Fax. +886-3-346-6640

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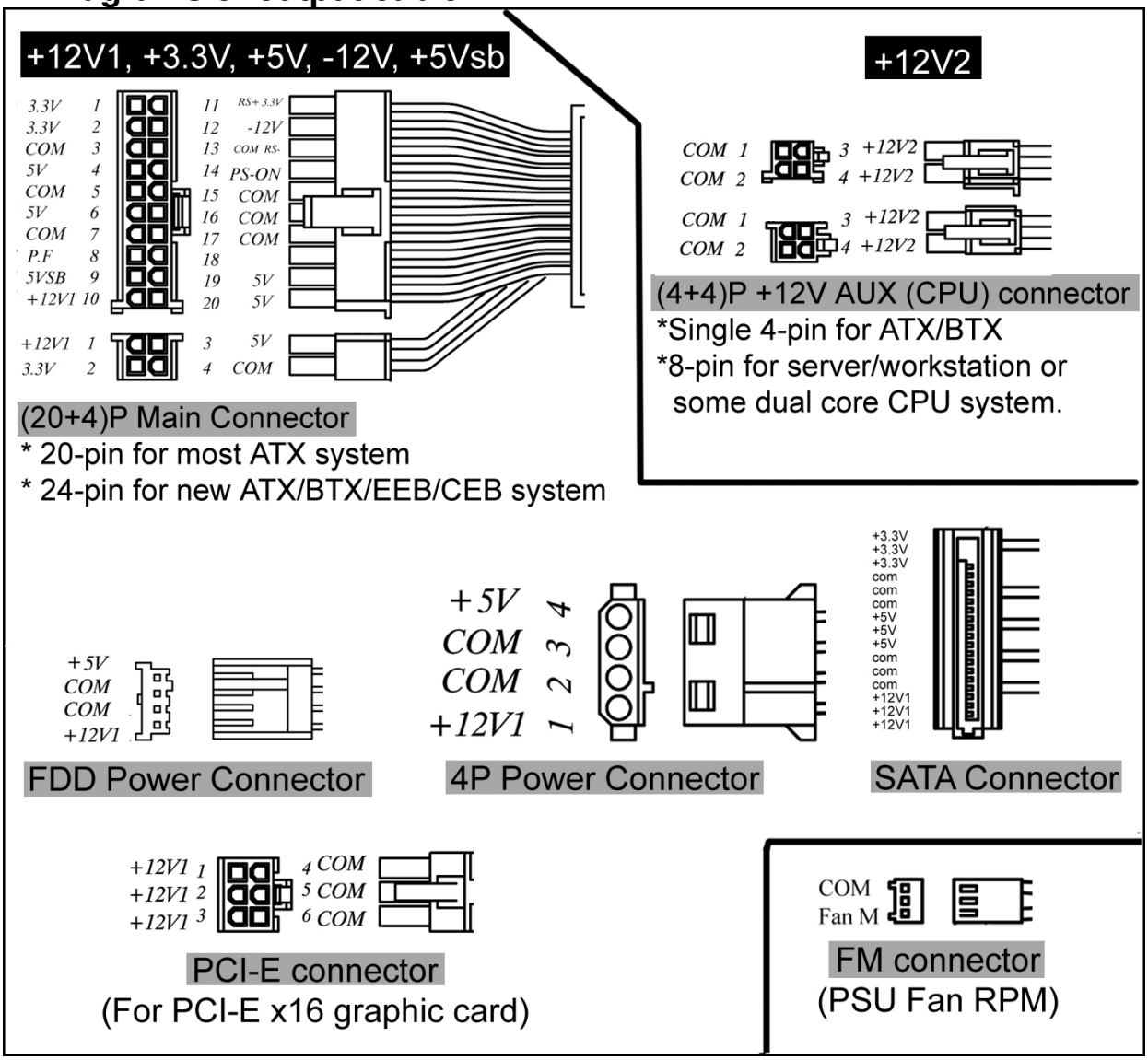
ENERMAX NOISETAKER II Power Supply Specification

		EG325P-VE EG325AX-VE	EG375P-VE EG375AX-VE	EG425P-VE EG425AX-VE	EG495P-VE EG495AX-VE	EG701AX-VE
AC Input Rating						
Input Voltage	P：	115 / 230 VAC, manual switching				
	AX：	100-240VAC, automatic switching				
Input Current	P：	8A/4A	8A/4A	10A/5A	10A/5A	*
	AX：	5-2.5A	6-2.5A	6.7-3A	7.5-3.5A	9.5-4A
Frequency		50Hz – 60Hz				
DC Output Rating						
+3.3V		24A	27A	30A	32A	34A
+5V		24A	27A	30A	32A	34A
		135W	145W	160W	170W	180W
+12V1		18A	20A	20A	22A	22A
+12V2		18A	20A	20A	22A	22A
		276W (23A)	**324W (27A)**	**348W (29A)**	**384W (32A)**	**420W (35A)**
-12V		0.6A	0.6A	0.6A	0.6A	0.6A
+5Vsb		3.0A	3.0A	3.0A	3.0A	3.0A
		22.2W	22.2W	22.2W	22.2W	22.2W
+3.3V, +5V +12V1, +12V2 Combined		297.8W	347.8W	397.8W	462.8W	577.8W
Total Power		**320W**	**370W**	**420W**	**485W**	**600W**

Diagrams of output cable



English

Dear customer,

Thank you for choosing this ENERMAX NOISETAKER II power supply unit (PSU)! Please read this manual carefully and follow its instructions, before installing the PSU.

We, ENERMAX, are globally renowned as the leading manufacturer of innovative PC products of highest quality just like this NOISETAKER II PSU, which is the very first single fan PSU in the world, complying with the newest standard for desktop class power supplies. We would like to draw your attention to the fact that PC's have become very damageable systems, which require very specific conditions to work best for you without failing. To avoid such failures and to increase lifetime of your entire PC, we suggest you to make sure that:

- Your PC is not located near a radiator or any other heat producing device
- Your PC is not located near a magnetic device
- Your PC is not located in a moist and/or dusty and/or vibrating environment
- Your PC is not exposed to direct sunshine
- Your PC is sufficiently cooled by additional fans

We do not recommend using PC systems with fanless cooling, because a potentially high inner temperature decreases stability and lifetime of all components inside your PC!

Chapter A - COMPATIBILITY

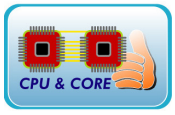
- ENERMAX NOISETAKER II PSU series is compliant with:
  - Intel ATX12V Power Supply Design Guide v2.2 specification and downward compatible with v2.01, v2.0 and v1.3.
  - ATX System Design Guide v2.2, v2.1
  - BTX/ EEB/ CEB

Please check your main board and graphics card manuals for compatibility:

- Your main board (MB) is compliant with Intel ATX12V v1.3 specification or higher.

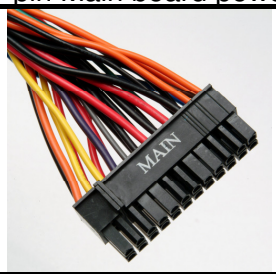
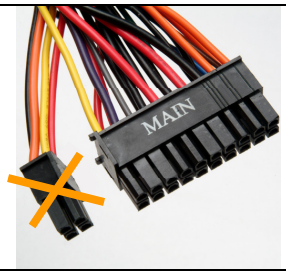
If your MB has ISA bus, this PSU might not be able to fully support it, because this PSU has no –5V rail to support some ISA devices. This rail has been abolished from Intel ATX12V v1.3 onwards. If you are unsure about MB's and ISA card compliance, please contact the respective manufacturer!

Chapter B - FEATURES

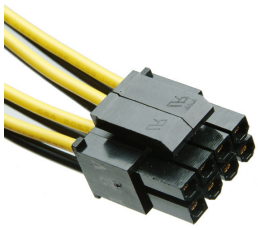
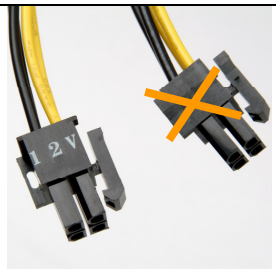
	Full compliance with the highest standard to desktop power requirements. Split 12V rails provide most stable current to CPU, GPU, MB and drives.
	Full support of Dual Core systems (incl. Pentium D XE and Athlon 64 X2) & Dual CPU systems.
	Convertible design to power up ATX/BTX systems and support dual CPU entry-level server/workstation.
	After PC shuts down, cooling fans keep running for at least 30 sec. to effectively cool down parts and hardware inside PSU and PC case.
	High efficiency of about 80% in wide load range (30-100%) minimizes your electricity bill.
	PF value up to 0.99 to provide stable and clean power under 100-240VAC by auto switching.(AX models only)
	Protected by OCP, OVP, UVP, OLP, SCP, OTP for maximum safety. Full rated power under 0-40°C/32-104°F ambient temp.
	The best cooling method for PC system, and is strongly suggested by AMD.
	Manual fan speed control to keep the balance between cooling effect and acoustic noise. Automatic fan speed adjustments to prevent system overheating.

Chapter C - CABLES & CONNECTORS

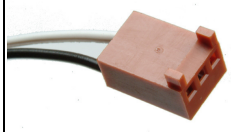
C1 - 20+4-pin Main board power connector

	
24-pin configuration supports new generation of ATX/BTX PC (ATX12V v2.01/v2.2) & two sockets EEB/CEB server/workstation (EPS12V) boards	20-pin configuration (4-pin module detached and not used) supports former ATX systems (ATX12V v1.3 and prior)

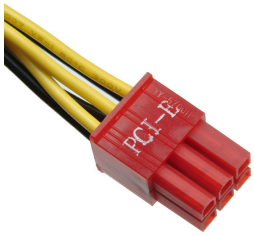
C2 - 4+4-pin CPU + 12V AUX power connectors

	
8-pin configuration supports two sockets server/workstation systems and some single socket PC systems (ATX12V v2.2 & EPS12 v2.1)	4-pin configuration supports most ATX/BTX systems. (ATX12V v1.3/v2.01) Please use the connector with “+12V” marking.

C3 - FM connector (PSU fan monitor connector)

	This connector provides PSU 8cm fan RPM signal for BIOS detection. With system monitor program, the alarm will be activated when fan speed is abnormal or lower than main board’s default setting. When this situation happens, check if your alarm threshold is properly set or disable fan speed monitor.

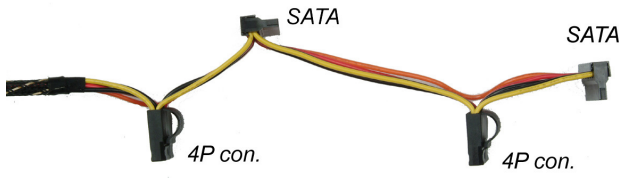
C4 - 6-pin PCI Express GPU cable **(420W / 485W / 600W):**

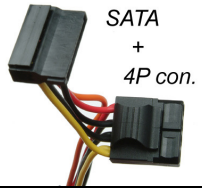
	It provides +12V output for PCI-E x16 graphics cards. Use it, if your graphics card(s) require(s) PCI-E power connector(s).

Some dual processor workstation boards require this 6-pin SSI workstation power connector (with +3.3V and +12V output). 6-pin PCI-E connector and 6-pin SSI Workstation connector look almost the same, but provide different DC outputs. Misusing will cause damage to your system and power supply.
No such 6-Pin SSI workstation power connector is included in this PSU.

C5 - ENERMAX ETERNITY connectors **(420W / 485W / 600W):**

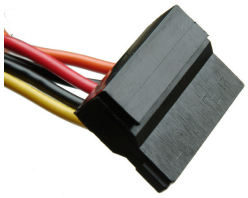
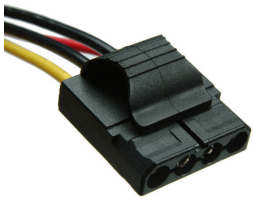
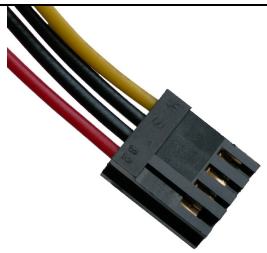
ETERNITY connector design features always a pair of 4-pin Molex and SATA connectors, thus giving you flexible choice in between such devices.





Although each of these peripheral cables provides 4 power connectors, we strongly recommend connecting **only** 3 HDDs or ODDs per cable. We **do not** recommend connecting more than 3 devices per cable, nor using additional adaptors (Y cables). This might cause too high power consumption, which results in voltage drop and may damage devices.

C6 - Drives and Peripherals Connection:

		
SATA power For SATA interface drives	**4-pin Molex** For HDD/ODD/peripherals (EZ plug design:you can easily detach the connector from peripheral.)	**FDD** For floppy drives

Chapter D - BOOTING YOUR SYSTEM

Before finally doing so, please make sure again that

1. Main power connector (20 or 24-pin configuration) is properly connected
2. CPU +12V power connector (if required by MB) is properly connected
3. Or a 4-pin Molex connector (if required by MB) is properly connected
4. FM connector (if required by MB) is properly connected
5. All other needed connectors are properly connected

Incorrect insertion might cause your PC unable to boot and some components might even be damaged!

6. AC cord is properly connected to wall plug and power supply AC inlet.
7. Then close your PC chassis.
8. Turn on the power supply by setting the I/O switch to “I”, your system is ready to go.
9. You can turn on your PC now by pushing power button on your PC case!

Chapter E - PROTECTION, SAFETY & SECURITY

This ENERMAX NOISETAKER II PSU features multiple protections. In case of most abnormal situations, the power supply will automatically turn off to avoid potential danger to itself and other PC components. It is usually a malfunction of components or user’s negligence to trigger off a protection event. In such circumstance, please check your PC devices and working environment for malfunction by switching off and/or disconnecting:

1. I/O switch of PSU
2. AC cord from wall plug and power supply AC inlet
3. Unnecessary components as additional drives
4. Check PSU for temperature by simply touching it. If it feels very hot, this can be caused by malfunction of case fans or the PSU fan itself and/or wrong positioning of your PC (See recommendations at beginning of this manual)
5. Wait some minutes until PSU cools off
6. Reconnect AC cord to wall plug and power supply AC inlet
7. Turn “ON” the I/O switch of PSU
8. Check, if all fans are working
9. Contact technical support of the respective manufacturer of the component which you think might be the cause to the problem (e.g. MB, GPU or PSU)

E1 - OVP, Over Voltage Protection

PSU will shut down when any of the following DC outputs exceed respective trigger points:

DC output	Trigger point	Unit
+3.3V	3.76-4.6	Volts
+5V	5.5-7.0	Volts
+12V1 or 12V2	13.4-15.6	Volts

E2 - OLP, Over Load Protection

When your PC's power consumption exceeds 110% ~ 160% of this PSU's maximum rated output power, it will shut down in 50ms.

E3 -SCP, Short Circuit Protection

When this occurs, please check

1. If the power connector is correctly insert into component
2. If power cable is intact or not
3. If any thing stick on connectors' terminals

Even after you have eliminated the short circuit, you still need to check if the device has been damaged or not.

E4 - UVP, Under Voltage Protection

The power supply shall operate properly at 75~85VAC input voltage to guarantee proper design margins and shall power off if the Line in voltage is turns below 65~75VAC, which is also known as brown out protection.

E5 - OCP, Over Current Protection

The power supply provides latch mode (shut down) under condition of over current output defined as below:

DC output	Trigger point	Unit
+3.3V	55	A
+5V	53	A
+12V1 or V2	30	A

If any of trigger points is exceeded, PSU will automatically turn off. This happens when power consumption of your system per DC output or total power output is too high, because of:

1. Too many devices consuming too much power
2. Connectors are loosely inserted
3. Excessive over clocking

E6 - OTP, Over Temperature Protection

PSU will automatically turn off, when the temperature at the heat sink sensor exceeds 90°C~110°C/ 194°F ~230°F.

If your system suddenly shuts down, and power supply case is very hot, please check:

1. Wait for a couple of minutes until PSU cools off
2. Then restart the PC and check if PSU and case fans are functional. If not, please replace case fan or contact your PSU reseller or ENERMAX for support

If you have any question or need support, please contact your reseller or nearest ENERMAX subsidiary/agent or ENERMAX headquarter service center.